

Abstract

A polarizing glass comprising geometrically anisotropic particles dispersed in an oriented manner in at least the surface of a glass base body. The glass base body is denoted by the weight percentages of 50-65 percent SiO_2 , 15-22 percent B_2O_3 , 0-4 percent Al_2O_3 , 2-8 percent ZrO_2 , 6 percent $< \text{Al}_2\text{O}_3 + \text{ZrO}_2 < 12$ percent, 6-16 percent R_2O (where R denotes at least one from among Li, Na, and K), 0-3 percent Li_2O , 0-9 percent Na_2O , 4-16 percent K_2O , $\text{Li}_2\text{O} + \text{Na}_2\text{O} < \text{K}_2\text{O}$, 0-7 percent BaO and/or SrO , and 0-3 percent TiO_2 . The glass base body comprises per 100 weight percent of essentially the above composition at least 0.15-1.0 percent Ag and at least the chemical equivalent to Ag of Cl and/or Br; and the geometrically anisotropic silver particles are metallic Ag particles. The polarizing glass is employed in optical products such as optical isolators.

10032539-010202